

Date: Thursday, 5/10/2007 2:36:05 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: ALUM. EXTRUSION
Job Number	: 32309		
Estimate Number	: 10492		
P.O. Number	: <i>N/A</i>	Part Number	: D6014090
This Issue	: 5/10/2007 S.O. No. :	Drawing Number	: D6014 REV A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 1/1 Type : PURCHASED PARTS	Drawing Revision	: A
Previous Run	: 26546	Material	: <i>N/A</i>
Written By	: <i>[Signature]</i>	Due Date	: 10/30/2007 Qty: 40 Um: Each
Checked & Approved By	: <i>[Signature] 07.05.10</i>		
Comment	: Est A 05.08.31 New issue KJ/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: *3761**C207/05/11**(40)*

a) Extrude as per Dwg D6014

b) Material: 7075-T73/T73510/T73511 (QQ-A-200/11) Seamless Aluminum Tube

c) Minimum ultimate tensile strength = 68 ksi

d) Minimum tensile yield strength = 57 ksi

Possible Supplier: Aluminum Works

Material certification is required

2.0	D6014090P	ALUMINUM EXTRUSION
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 40.0000 Each(s)

ALUMINUM EXTRUSION

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

[Signature] 07/10/2007 (36)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D6006

*[Signature] 07.10.27**(36)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: ALUM. EXTRUSION

Job Number: 32309

Part Number: D6014090

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

N/A 5/10/07 26

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: IN THE SHOP

5/10/07-10-26 36

8.0

QC21

FINAL INSPECTION/W/O RELEASE



(36)

Comment: FINAL INSPECTION/W/O RELEASE

2011/10/2

Job Completion



u 5/10/07

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

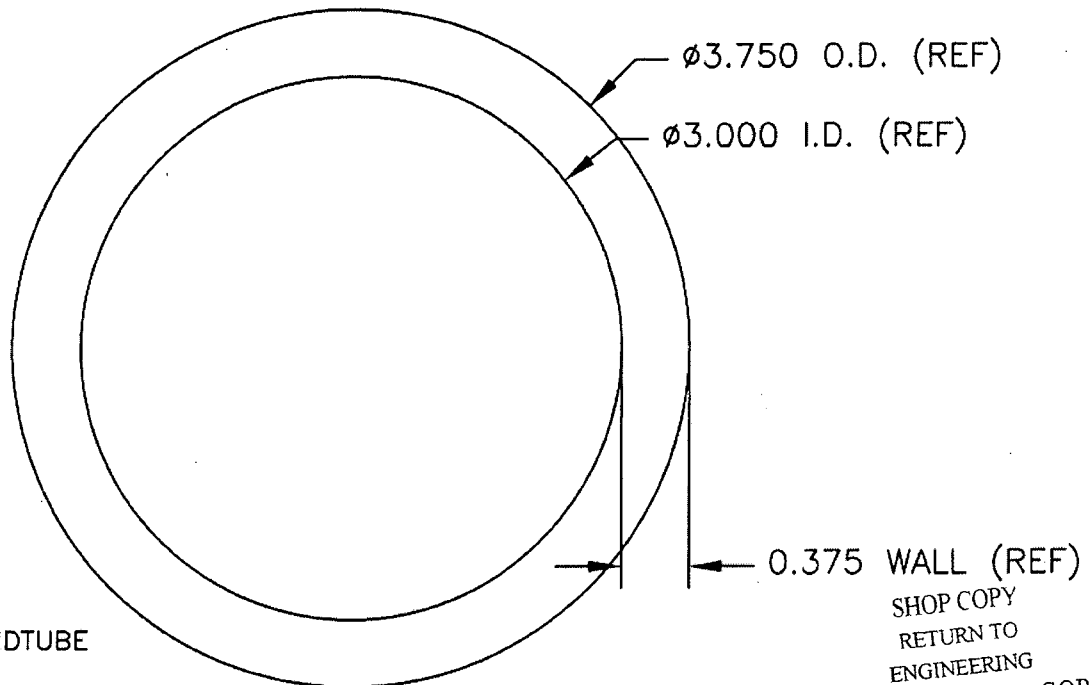
NOTE: Date & initial all entries



DESIGN PH	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6014	REV. A SHEET 1 OF 1
DATE 05.03.18		TITLE SKIDTUBE MATERIAL	SCALE 1:1
A	05.03.18	NEW ISSUE	

RELEASED
05.08.09 *[Signature]*

SPECIFICATION CONTROL DRAWING



NOTES

- 1) D6014-XXX SKIDTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 64" LONG TUBE: D6014-064

- 2) MATERIAL: 3.750 OD x 0.375 WALL 7075-T73/T73510/T73511 PER QQ-A-200/11
SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 68 ksi
MINIMUM YIELD TENSILE STRENGTH = 57 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.188/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

WORK ORDER
32309

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ALUnna

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1 - EN 10204:2004

Kunde: Dart Aerospace Ltd.

Client:

1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 1066/07

Cert No.: / No. du certificat:

Bestellnummer: PO00003761

Order No. / No. de commande

Auftrag: 25006/1

Our Reference/Notre Ref.:

Produkt: Rohre nahtlos gepresst

Product / Produit: Tubes seamless extruded Tubes file sur aiguille

Spezifikation: -; AMS - QQ - A - 200/11E; -; -; Spezifikation Dart Aerospace D6014

Specification:

Werkstoff: EN AW-7075

Alloy/Alliage: 3.4365

Zustand: T 73511

Temper/État

Abmessung: 3,750 INCH x 3,000 INCH x 0,375 INCH x 90,000 INCH

Size / Dimension: D6014-090 3.750 X 0.375 X 90

Kennzeichnung: ALUnna-cert No.1066/07-7075-T73511-cast No.01706231-AMS-QQA-200/11-3.750" OD X 0.375"Wall-Heat

Marking/Marquage: No.939/09-Lot25006/1-P.O.00003761

Lieferung: Stück/pcs. kg/kgs

Delivered Material / Matériel délivré: 36 595,00

1. Chemische Analyse

Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
01706231	0,06	0,17	1,58	0,01	2,41	0,21	6,01	0,02		0			

Elemente ohne Angabe < 0,01 % / Elements without indication < 0,01 %

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Specification	Rm N/mm ²	Rp0,2 N/mm ²	A5 %	A 50 %	HB	Heat No.
min:	469	393				
max:						
1	525	462	13,3	11,0		939/09 - 36 pcs.
2	528	465	13,3	10,0		

electrical conductivity: 40% IACS max. 23,6 MS/m

RMS outside 25 max. 15,5 μ"

Ergebnis der Prüfungen:

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:

We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultat:

Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande